

DERWENT-ACC-NO: 2001-443234
DERWENT-WEEK: 200148
COPYRIGHT 1999 DERWENT INFORMATION LTD

TITLE: Telescope has a tube made of a carbon/carbon-silicon carbide material having a thermal expansion coefficient which fits the thermal expansion coefficient of the material of the mirror body of the primary mirror

INVENTOR: KRENKEL, W; RENZ, R

PATENT-ASSIGNEE: DLR DEUT ZENT LUFT & RAUMFAHRT EV[DELF]

PRIORITY-DATA: 1999DE-1062831 (December 23, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES	MAIN-IPC	
DE 19962831 A1	July 12, 2001	N/A
008	G02B 023/06	

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
DE 19962831A1	N/A	1999DE-1062831
December 23, 1999		

INT-CL_(IPC): C04B035/577; G02B023/06 ; G02B023/16

ABSTRACTED-PUB-NO: DE 19962831A

BASIC-ABSTRACT: NOVELTY - The telescope tube is made of a C/C-SiC material having a thermal expansion coefficient which fits the thermal expansion coefficient of the material of the mirror body of the primary mirror. The material is produced from pyrolyzed pre-body or a pre-body made ceramic by infiltrating with silicon. The pre-body is made from continuous carbon fibers and contains silicon and silicon carbide in an amount of 30-70 wt.%.

DETAILED DESCRIPTION - Telescope comprises a primary mirror and a secondary mirror with a mirror body made of a expansion-deficient mirror body material. The secondary mirror is held at a distance from the primary mirror by a holder fixed to the telescope tube. The holder is made of a material having a low expansion coefficient in the temperature range of +/- 75 deg. C. The telescope tube is made of a C/C-SiC material having a thermal expansion coefficient which fits the thermal expansion coefficient of the material of the mirror body of the primary mirror. The material is produced from pyrolyzed pre-body or a pre-body made ceramic by infiltrating with silicon. The pre-body is made from continuous carbon fibers and contains silicon and silicon carbide in an amount of 30-70 wt.%.

USE - Used as a telescope.

ADVANTAGE - The telescope has high strength.

CHOSEN-DRAWING: Dwg.0/4

TITLE-TERMS:

TELESCOPE TUBE MADE CARBON CARBON SILICON CARBIDE MATERIAL
THERMAL EXPAND
COEFFICIENT FIT THERMAL EXPAND COEFFICIENT MATERIAL MIRROR
BODY PRIMARY MIRROR

DERWENT-CLASS: L02 P81

CPI-CODES: L02-H02A; L02-H04; L02-J02C;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2001-134233

Non-CPI Secondary Accession Numbers: N2001-327849